

**A SURVEY ON PATIENT'S KNOWLEDGE ABOUT OTC (OVER THE COUNTER)
MEDICATION, SIDE EFFECTS AND PHARMACIST ROLE IN OTC MEDICATION USE****Dr. C. Logeshwaran*¹, Dr. B. Aswini², J. Lokesh³**

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ABSTRACT

Background: Over The Counter (OTC) drugs which can be sold in the pharmacy without the prescription, The usage of over the counter (OTC) drugs is drastically increasing day by day. Despite all their benefits, improper use of medicines can bring health hazards. So, pharmacist must counsel the patient regarding OTC medication.

KEYWORDS: Despite all their benefits, improper use of medicines can bring health hazards.

INTRODUCTION

Over-the-counter (OTC) medications offer a convenient and accessible means for individuals to manage minor health conditions without the need for a physician consultation. However, the safe and effective use of these medications largely depends on the patient's knowledge regarding appropriate dosage, duration, and potential adverse effects.^[1] The increasing availability of non-prescription drugs has significantly improved the management of common ailments such as pain, fever, and respiratory symptoms. Despite their therapeutic benefits, the inappropriate use of OTC medications has emerged as an important public health concern.^[2] Studies have reported that a considerable proportion of individuals do not adequately read medication labels or fully understand the risks associated with prolonged or unsupervised use of OTC drugs.^[3] The classification of these medications as "non-prescription" often leads to a false perception of safety, thereby increasing the likelihood of misuse and adverse outcomes. In this context, the role of pharmacists becomes critically important. Pharmacists are easily accessible healthcare professionals who can assess patient history, identify potential drug interactions, and provide essential

counselling to ensure safe medication practices.^[4] Therefore, the present study aims to evaluate the level of public awareness regarding OTC medications and their associated side effects, while also emphasizing the significance of pharmacist involvement in promoting rational and safe self-medication practices.

AIM

To Analyse investigate the patient knowledge about OTC medication, side effects their impact and to ensure role of pharmacist in OTC medication use among students and public under online survey A prospective cross-sectional study was conducted over a period of one month among students and the general population to assess the knowledge, usage, and awareness regarding over-the-counter (OTC) medications and the role of pharmacists in counselling.^[6] Data were collected using a structured, self-administered questionnaire consisting of 17 questions related to OTC drug use, knowledge of side effects, and awareness of pharmacist counselling.^[7] The questionnaire included sections on demographic details, patterns of OTC medication use, awareness regarding dosage and adverse effects, and perception towards pharmacist involvement. Participants were given

approximately 15 minutes to complete the questionnaire, and all responses were collected anonymously to ensure confidentiality. Participants who voluntarily agreed to participate and were above 18 years of age were included in the study, while those who did not provide consent or submitted incomplete responses were excluded.

The collected data were analyzed using descriptive statistical methods, and the results were expressed as frequencies and percentages. Graphical representations such as pie charts and bar diagrams were used for better visualization of the data.^[8]

The methodological quality of the study was assessed using the Newcastle–Ottawa Scale (NOS), adapted for cross-sectional studies.^[9,10] The NOS is a validated tool widely used to evaluate the quality of non-randomized studies in observational research.^[9] The modified NOS evaluates three domains: selection, comparability, and outcome.^[10] The selection domain assesses representativeness, sample size, non-response rate, and ascertainment of exposure; the comparability domain evaluates control of confounding variables; and the outcome domain assesses outcome measurement and statistical analysis. Each study is assigned a maximum of 10 stars, with higher scores indicating better methodological quality. In the present study, the NOS was used to systematically assess the quality of the study design, data collection, and analysis.

RESULTS AND DISCUSSION

A total of 273 participants responded to the survey, out of which 97.8% provided consent and were included in the study.

□ Demographic Characteristics

The majority of participants belonged to the age group of 18–30 years (80.6%). The gender distribution was nearly equal, with 50.5% males and 49.5% females. Most participants were graduates (83.5%), and a large proportion were students (70.7%).

□ Use of OTC Medicines

About 54.2% of participants reported using OTC medicines without a doctor's prescription, while 45.8% did not. The frequency of use was reported as occasional in 66.3% of participants, rare in 30%, and frequent in 3.7%.

The common reasons for using OTC medicines included cold and cough (54.6%), fever (46.5%), headache (46.2%), body pain (15.8%), and acidity (10.3%).

The primary source of obtaining OTC medicines was medical stores (81.3%), followed by community pharmacies (25.3%), friends/relatives (10.3%), and online pharmacies (2.2%).

□ Knowledge About OTC Medicines

A total of 69.6% of participants were aware that OTC medicines can cause side effects, while 12.5% were not aware and 15% were unsure.

Regarding reading instructions, 46.5% reported always reading instructions before use, 42.1% read them sometimes, and 11.4% never read them.

About 80.5% of participants reported awareness of the correct dosage of OTC medicines, while 19.5% were not aware. Additionally, 67.4% were aware that OTC medicines can interact with other drugs.

□ Side Effects

Only 14.7% of participants reported experiencing side effects after using OTC medicines, while 85.3% did not report any side effects.

Among those who experienced side effects, the most common were nausea/vomiting (24.3%), drowsiness (22.5%), gastric irritation (14.4%), and allergic reactions (12.6%).

Following side effects, 39.5% consulted a doctor, 30.3% stopped the medication, 23% ignored the symptoms, and a small proportion consulted a pharmacist.

□ Pharmacist Role

A total of 83.5% of participants were aware that pharmacists provide advice on OTC medicines.

However, only 9.9% always consulted a pharmacist before purchasing OTC medicines, while 43.6% consulted sometimes and 46.5% never consulted.

Pharmacist counselling included information on dosage (71.1%), duration (59%), side effects (28.6%), and drug interactions (27.8%).

□ Attitude Towards Pharmacist Counselling

About 60.1% of participants agreed that pharmacist counselling improves safe OTC use, and 79.5% believed that pharmacist counselling should be mandatory.

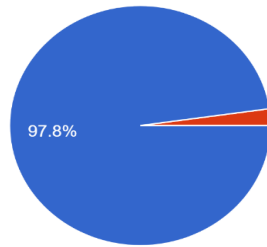
Most participants reported being satisfied (48.4%) or very satisfied (21.6%) with pharmacist counselling services.

Table: Quality Assessment Using Modified Newcastle–Ottawa Scale (NOS).

Domain	Criteria	Description (Your Study)	Score (★)
Selection (Max 5★)	Representativeness of the sample	Majority were students (not fully representative of general population)	★
	Sample size	Adequate (n = 273)	★

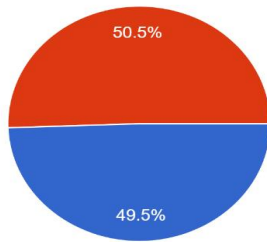
	Non-respondents	Not described	☆
	Ascertainment of exposure	Structured Google Form questionnaire used	★
	Statistical test	Descriptive analysis performed	★
Subtotal (Selection)			4/5 ★
Comparability (Max 2★)	Control for confounders	Not performed	☆
	Subgroup analysis	Performed (age, gender, education, occupation)	★
Subtotal (Comparability)			1/2 ★
Outcome (Max 3★)	Assessment of outcome	Self-reported responses	★
	Statistical analysis clarity	Clear percentage-based analysis	★
	Validity/reliability of tool	Not reported	☆
Subtotal (Outcome)			2/3 ★

Consent Question (for Google Form) I voluntarily agree to participate in this study இந்த ஆய்வில் தன்னார்வமாக பங்கேற்க நான் சம்மதிக்கிறேன்
267 responses



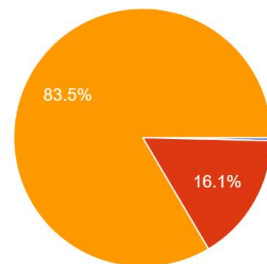
● I Agree | நான் ஒப்புக்கொள்கிறேன்
● I Do Not Agree | நான் ஒப்புக்கொள்ளவில்லை

Gender | பாலினம்
273 responses



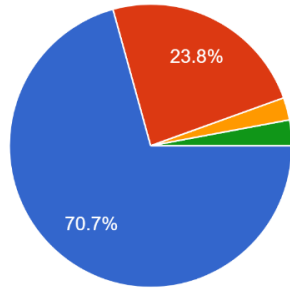
● Male | ஆண்
● Female | பெண்
● Other | மற்றவை

Education Level | கல்வித் தகுதி
273 responses



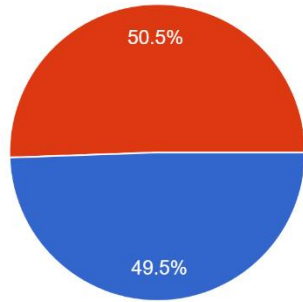
● No formal education | முறையான கல்வி இல்லை
● School level | பள்ளி
● Graduate | பட்டப்படிப்பு

Occupation | தொழில்
273 responses



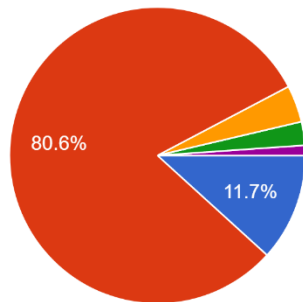
- Student | மாணவர்
- Employed | வேலை செய்பவர்
- Self-employed | சுயதொழில்
- Unemployed | வேலை இல்லாதவர்
- Retired | ஓய்வுபெற்றவர்

Gender | பாலினம்
273 responses



- Male | ஆண்
- Female | பெண்
- Other | மற்றவை

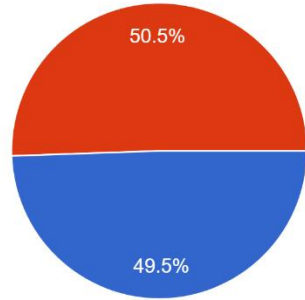
Age | வயது
273 responses



- <18
- 18-30
- 31-45
- 46-60
- 46-60

Gender | பாலினம்

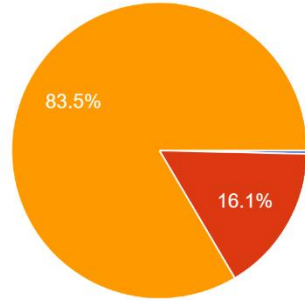
273 responses



- Male | ஆண்
- Female | பெண்
- Other | மற்றவை

Education Level | கல்வித் தகுதி

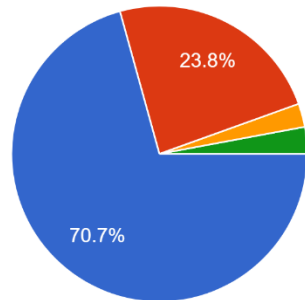
273 responses



- No formal education | முறையான கல்வி இல்லை
- School level | பள்ளி
- Graduate | பட்டப்படிப்பு

Occupation | தொழில்

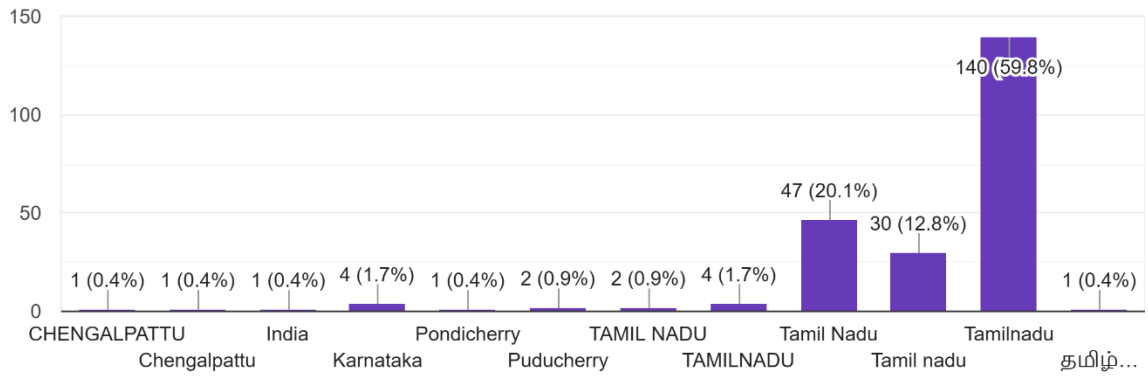
273 responses



- Student | மாணவர்
- Employed | வேலை செய்பவர்
- Self-employed | சுயதொழில்
- Unemployed | வேலை இல்லாதவர்
- Retired | ஓய்வுபெற்றவர்

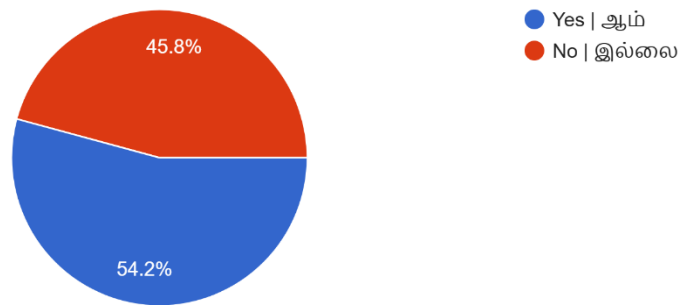
STATE | மாநிலம்

234 responses



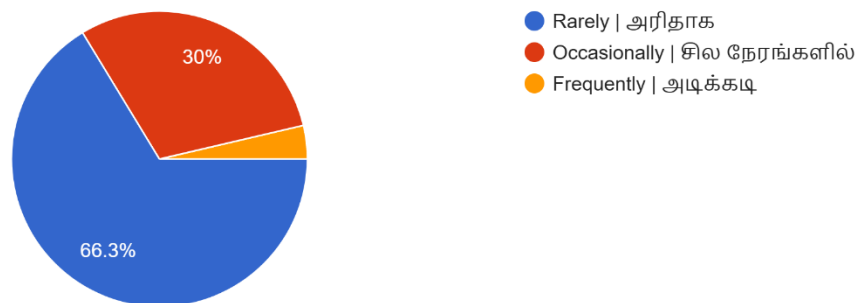
Do you use OTC medicines without doctor's prescription? மருத்துவரின் பரிந்துரை இல்லாமல் மருந்துகளை பயன்படுத்துகிறீர்களா?

273 responses



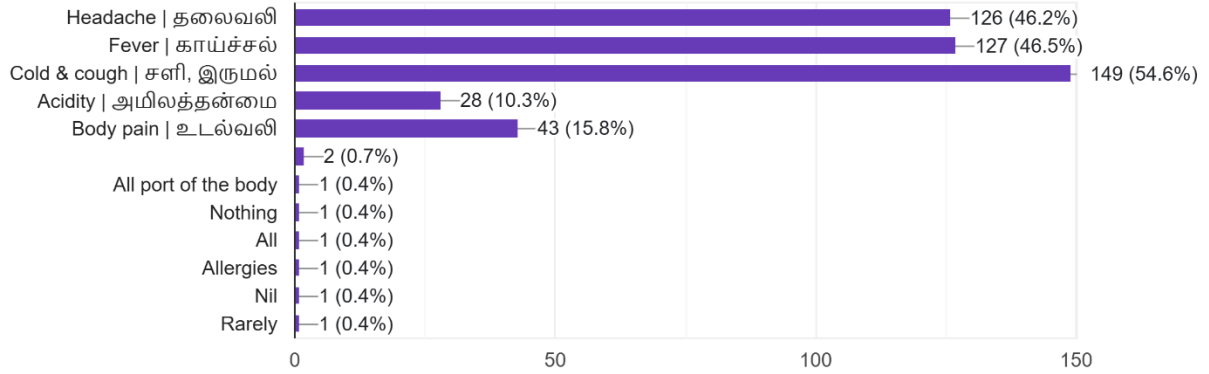
How often do you use OTC medicines? மருத்துவர் பரிந்துரை இல்லாமல் பெறப்படும் மருந்துகளை எவ்வளவு பயன்படுத்துகிறீர்கள்?

273 responses



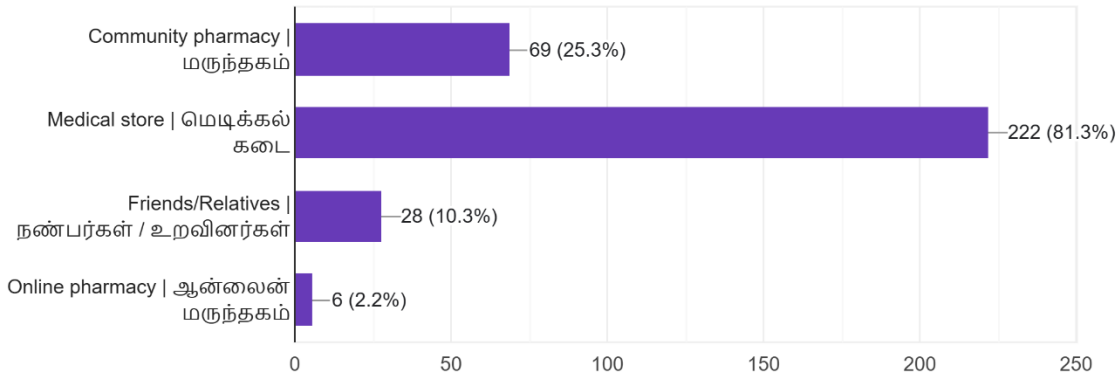
Reasons for using OTC medicines மருத்துவர் பரிந்துரை இல்லாமல்
பெறப்படும் மருந்துகளை பயன்படுத்தும் காரணங்கள்

273 responses



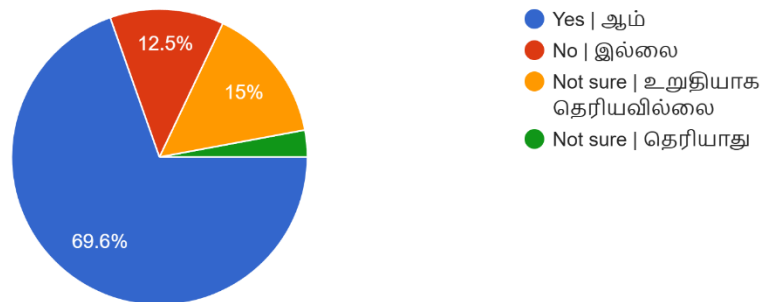
Source of obtaining OTC medicines மருத்துவர் பரிந்துரை இல்லாமல்
பெறப்படும் மருந்துகளை எங்கிருந்து பெறுகிறீர்கள்?

273 responses

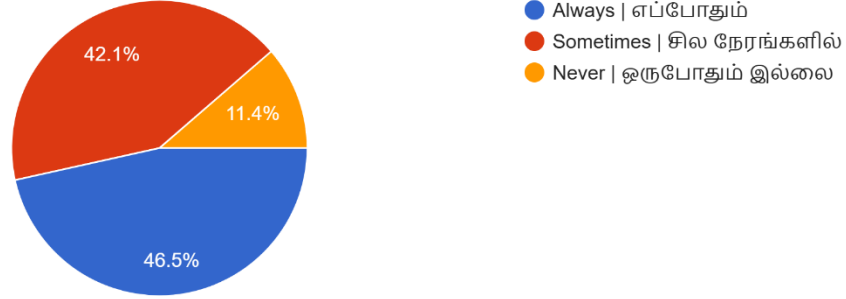


Are you aware that OTC medicines can cause side effects? மருத்துவர் பரிந்துரை இல்லாமல்
பெறப்படும் மருந்துகள் பக்கவிளைவுகளை ஏற்படுத்தும் என்பதை அறிவீர்களா?

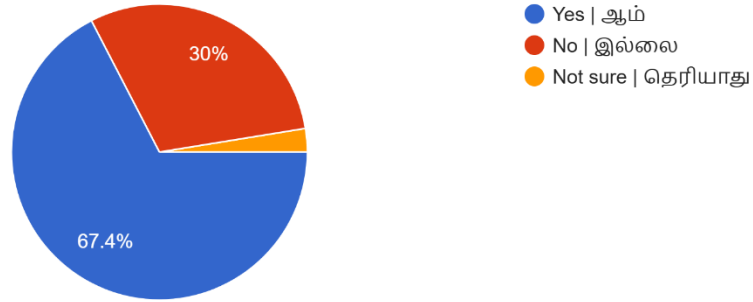
273 responses



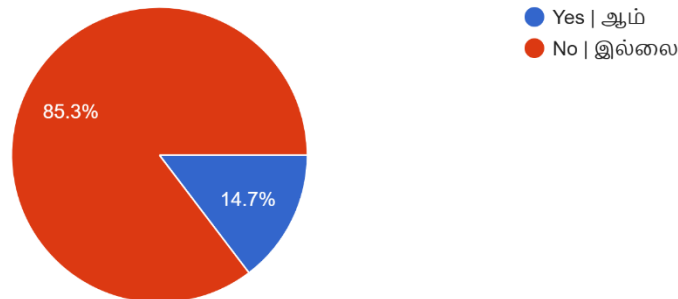
Do you read instructions before using OTC medicines? மருத்துவர் பரிந்துரை இல்லாமல் பெறப்படும் மருந்துகளை பயன்படுத்துவதற்கு முன் வழிமுறைகளை படிப்பீர்களா?
273 responses



Are you aware that OTC medicines can interact with other medicines? மருத்துவர் பரிந்துரை இல்லாமல் பெறப்படும் மருந்துகள் மற்ற... தொடர்பு கொள்ளும் என்பதை அறிவீர்களா?
273 responses

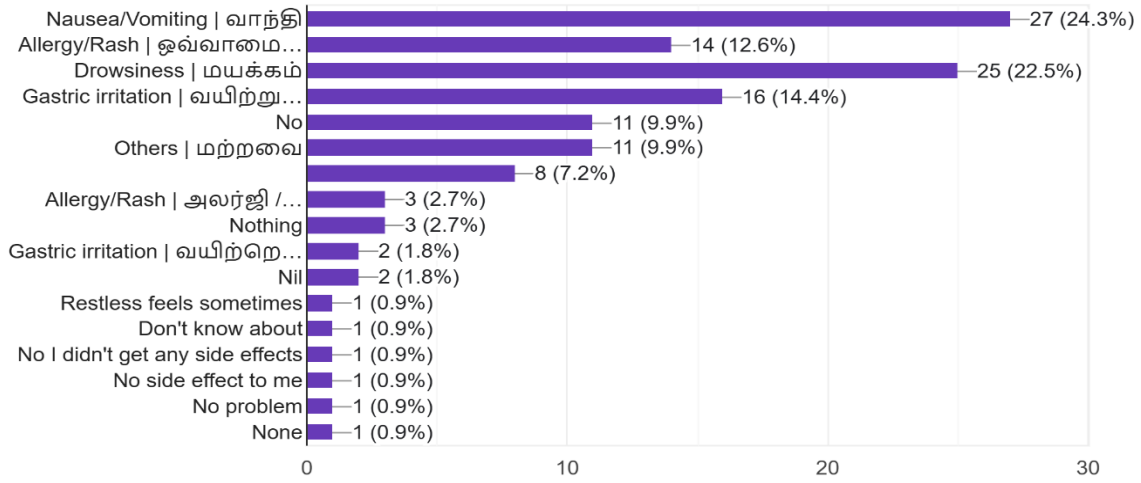


Have you experienced side effects after using OTC medicines? மருத்துவர் பரிந்துரை இல்லாமல் பெறப்படும் மருந்துகளை பய... பிறகு பக்கவிளைவுகள் ஏற்பட்டுள்ளதா?
273 responses



If yes, what type of side effect? ஆம் என்றால், எந்த வகை பக்கவிளைவு?

111 responses



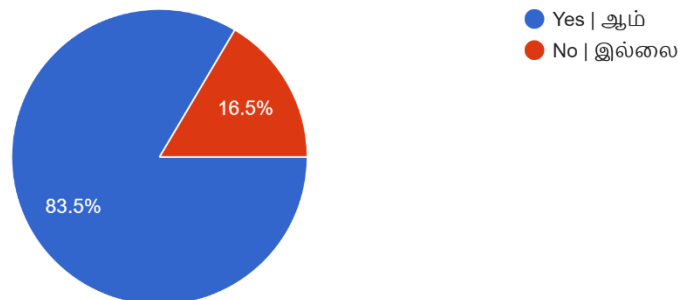
What action did you take after side effects? பக்கவிளைவு ஏற்பட்ட பிறகு நீங்கள் என்ன செய்தீர்கள்?

152 responses

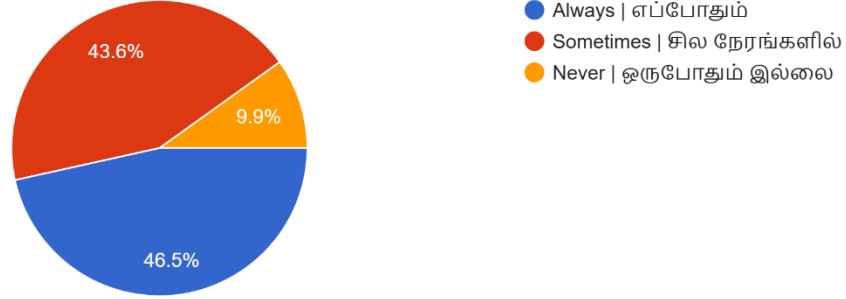


Are you aware pharmacists provide advice on OTC medicines? மருத்துவர் பரிந்துரை இல்லாமல் பெறப்படும் மருந்துகள் கு...ோசனை வழங்குவார் என்பதை அறிவீர்களா?

273 responses

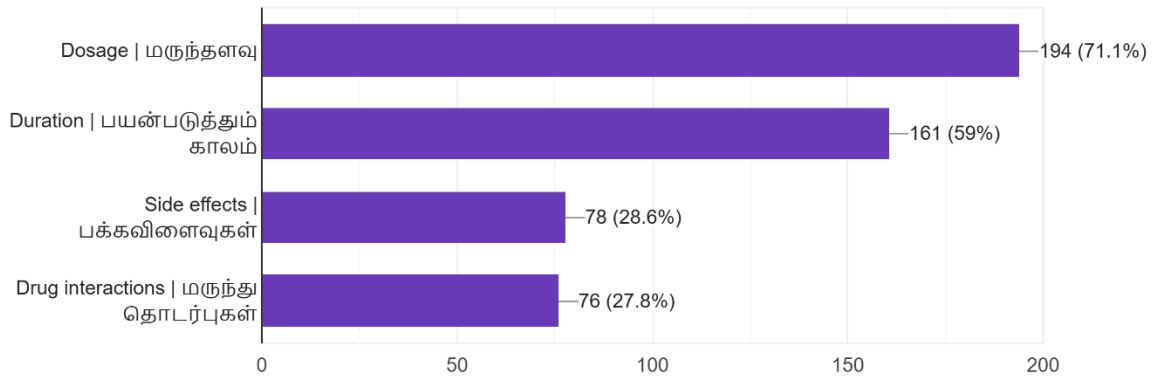


Do you consult a pharmacist before buying OTC medicines? மருத்துவர் பரிந்துரை இல்லாமல் பெறப்படும் மருந்துகளை வாங்குவதற்கு முன் மருந்தாளுனரை அணுகுகிறீர்களா?
273 responses

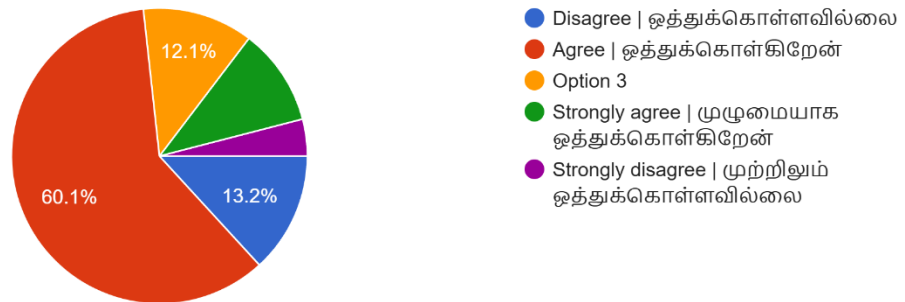


Has the pharmacist explained the following? மருந்தாளுனர் கீழ்க்கண்டவற்றை விளக்கியுள்ளாரா?

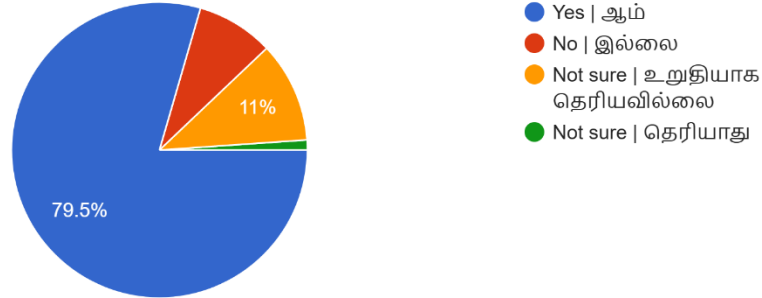
273 responses



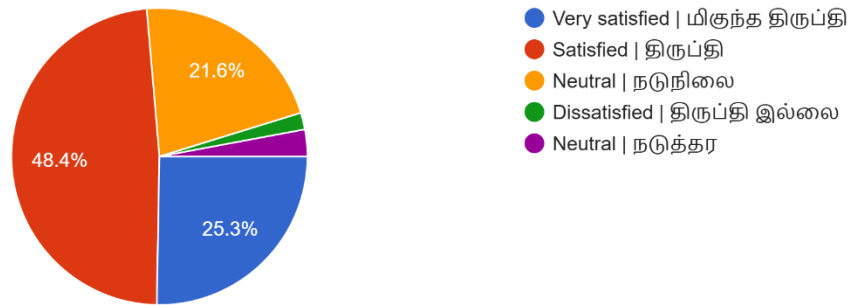
Pharmacist counselling improves safe OTC use மருந்தாளுனர் ஆலோசனை மருத்துவர் பரிந்துரை இல்லாமல் பெறப்படும் மருந்த... பாதுகாப்பாக பயன்படுத்த உதவுகிறதா
273 responses



Should pharmacist counselling be mandatory for OTC medicines? மருத்துவர் பரிந்துரை இல்லாமல் பெறப்படும் மருந்துகளுக்க...லோசனை கட்டாயமாக இருக்க வேண்டுமா?
273 responses



Satisfaction with pharmacist counselling மருந்தாளுனர் ஆலோசனை குறித்த திருப்தி
273 responses



CONCLUSION

The present study demonstrated a high prevalence of over-the-counter (OTC) medication use among the study population, particularly among young and educated individuals. Although a considerable proportion of participants were aware of the potential side effects and drug interactions associated with OTC medicines, this knowledge did not consistently translate into safe medication practices. Self-medication for common ailments such as cold, fever, and headache was widespread, often without adequate professional guidance.

The findings also revealed that while awareness regarding the role of pharmacists was relatively high, their services were underutilized in practice. Pharmacist counselling was primarily limited to dosage and duration, with less emphasis on important aspects such as side effects and drug interactions, which may compromise patient safety.

Subgroup analysis indicated that demographic factors such as age, education, and occupation influence OTC medication use and awareness, with students and

younger individuals showing higher usage patterns. Despite a generally positive attitude towards pharmacist counselling, there remains a gap between awareness and actual healthcare-seeking behavior.

Overall, the study highlights the need for improved public education, strengthened pharmacist-patient interaction, and stricter regulatory measures to promote the rational and safe use of OTC medicines. Enhancing awareness programs and making pharmacist counselling more comprehensive and accessible could play a crucial role in minimizing the risks associated with self-medication and improving overall healthcare outcomes.

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